Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How to Make Your Chores Easier - Honors**

1. Pick one of these machines:   
 2nd class lever, 3rd class lever, moveable pulley, OR fixed pulley.

2. Do a little research to find out how the simple machine you chose makes work easier.

Choose from:  
 A. Small force but large distance from me → Large force but small distance   
 from machine

B. Large force but only for a small distance from me → Small force but a large   
 distance from the machine (which means more speed)

C. No change in force or distance for me or machine. Machine only changes   
 the direction of my force.

3. Draw a picture below of you using the machine to make a chore easier.

4. Name the chore you are doing.

5. Give the name of the tool and the type of simple machine you are using.

6. Explain how using the simple machine makes your work easier.

7. Write the equations for work in and work out. Use the symbols Win, Wout, Fe, De, Fr, and Fd.   
 Make the symbols bigger or smaller to indicate the size of each.

Example: Chore: Opening a box  
 Simple Machine: crowbar which is a 1st class lever.

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I put in just a little force but have to move my end of the crowbar a long distance.

Win = Fe x De

little distance box opens

The crowbar moves the box open just a little distance but with a large force.

Wout = Fr x Dr

long distance I have to move